Washington Park Arboretum

BULLETIN

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Washington Park Arboretum

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The Washington Park Arboretum is managed cooperatively by the University of Washington and Seattle Parks and Recreation; the Arboretum Foundation is its major support organization.

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ABOVE: These large, single, snow-white blossoms belong to *Prunus* 'Berry' Cascade Snow™, which may be viewed in the Arboretum at grid coordinates 33-2W and 32-2W. Originally discovered in the Berry Botanic Garden in Portland, Oregon, this flowering cherry is very disease resistant, especially to brown rot, and has yellow to bronzy-orange foliage in autumn. It has been selected as a Great Plant Pick. For further information, see www.greatplantpicks.org.

ON THE COVER: "Magnolia Pinkie," by Debra Feinman of North Bend, Washington, was awarded grand prize in the amateur division in last year's Arboretum photo contest. This hybrid cultivar of *Magnolia wilsonii* may be seen in the Arboretum at grid coordinates 27-1W.

Spring Into Action...Or Relaxation

With all that we have to do each day, it sometimes seems there are too many choices and options. Fortunately, the contributing writers of this Bulletin edition provide sound information to make our choices and activities as gardeners, nature lovers or volunteers a bit easier. Perhaps you will-choose simply to relax and enjoy the remarkable knowledge and talent writers (and photographers and illustrators!) bring to every issue.

In this issue, we learn about volunteers who give time and talent to the Arboretum Foundation's thriving Plant Donations program and about the generous and far-sighted people who funded and supported development of the Elisabeth C. Miller Horticultural Library, one of the region's most treasured assets. And you will enjoy a profile of an amazing gardener and designer, Mike Lee, whose work and creativity have enhanced the area's growing horticultural wealth and legacy.

Now, more about choices. In this issue we look at a few: climbers for lively plant combinations, smart choices for making over (or beginning) container gardens, and small but mighty willows. And, for good measure, we learn about spiders (nature's pest control experts) and the ongoing effort to document the many, magnificent trees of Seattle.

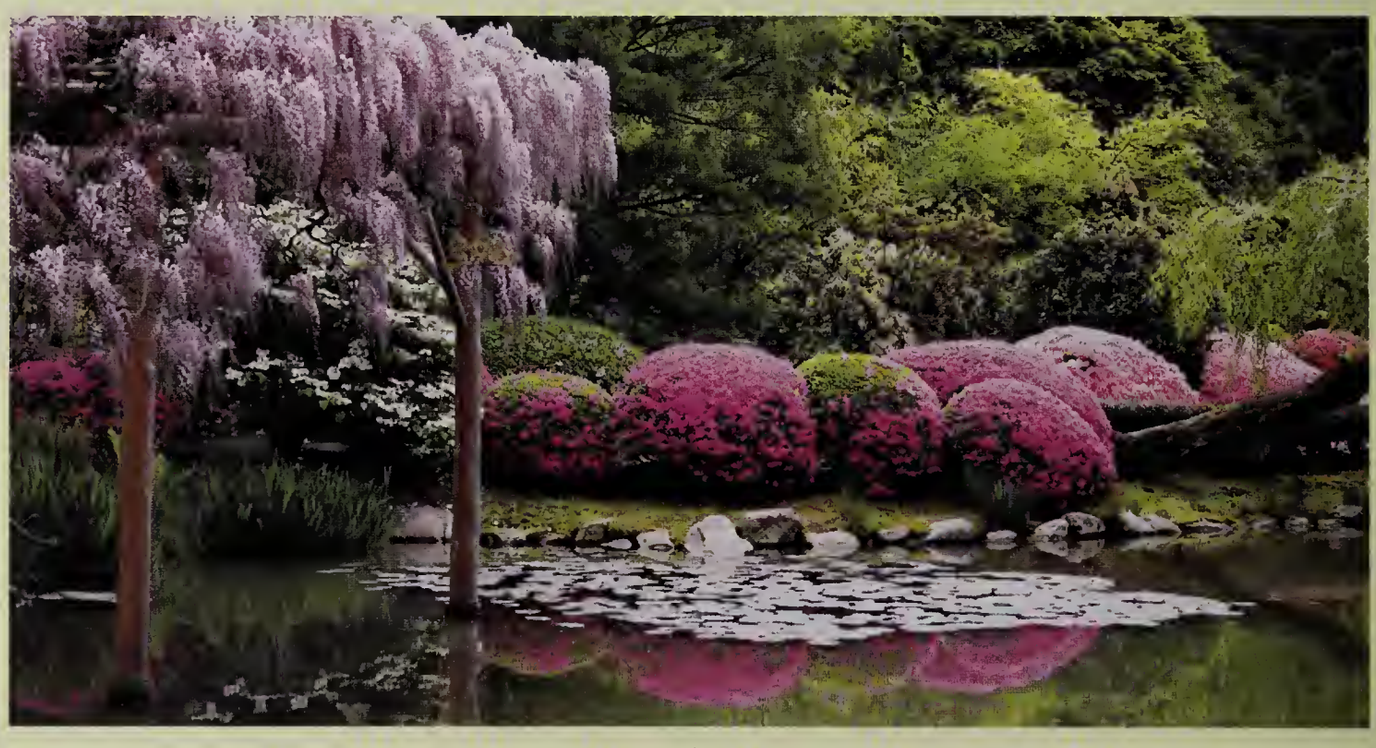
Speaking of garden options, as your gardening endeavors grow with the return of spring, please visit and support the many advertisers who help make the Bulletin possible. Their choice to participate makes a real difference.

And, finally, please join the Arboretum Foundation in welcoming Professor David J. Mabberley, the new Director of Washington Park Arboretum, the Center for Urban Horticulture and the Miller Horticultural Library. Look for a profile of Professor Mabberley in the summer issue.

Deborah Andrews

Deborah Andrews, Executive Director,
Arboretum Foundation

This picture of spring in full bloom, "Wisteria," by Kathryn Keve of Suquamish, Washington, won the Japanese Garden category of the professional division in last year's Arboretum photo contest.



COMBINATIONS UNLOCKED

The Whys & Wherefores of Favorite Plant Combinations

9 The Ace of Diamonds

TEXT AND PHOTOS BY DAN BORROFF

My 1905 house resembled a strange hand of cards in 1975. The location was great—a king of hearts. The color—mustard—a joker; well, the paint was not peeling, so perhaps it was a three of clubs. The bathroom—orange and white, imitation Spanish, cushion tile linoleum; imitation pink tile wainscoting with chrome trim above that; and on top, black canvas wallpaper with oversized pastel and silver tropical fish. That was the joker!

The outside (hardly a garden) was

ABOVE: Climbing above *Choisya ternata* 'Sundance' in the author's garden, the butter-yellow and white honeysuckle, *Lonicera periclymenum* 'Graham Thomas,' grows happily with the acid-yellow climbing bleeding heart, *Dicentra scandens* and purple *Clematis* 'Rooguchi.'
INSET: The yellow stamens of *Clematis* 'Rooguchi' also complement this lively plant combination.

marginally better—a small patch of turf surrounded by a barn-red fence. The contrast with the mustard house and its dark brown trim was, well, less than sublime. The kitchen windows looked out on this treeless vision. Hot western sun beat in that first summer. A plain hedge of lilacs bounded the north side: 10 days of glory and perfume were followed by foliar decline and mildew ascendant, then winter. A four of clubs? Challenge: They were the neighbors' lilacs, but by virtue of placement, their bulk hung over my little plot. Hacking them back was not an option, and, after all, they were a screen between neighbors and didn't diminish my postage stamp-sized terrace.

"Miraculously, the four of clubs has become my ace of diamonds."

Time passed, but not the lilacs. This part of the garden resembled the proverbial dentist's children—neglected cavities. Friends would remark: "They must be nice when they're in bloom." Plants left over from landscape projects and new plants for experiment trickled in over the years. Eventually, trees shaded the kitchen window. Gradually, the lilacs became a proving ground for vines. A few, rated to 30 feet, proved to exceed their welcome and threatened to engulf the neighborhood. Others remain and provide as much pleasure as anything in the garden.

The lilacs scent the garden in April. By June, *Lonicera periclymenum* 'Graham Thomas,' a tangle 20 feet wide and 12 feet tall, with lemon-yellow and white blossoms of traditional honeysuckle sweetness, captivates a resident hummingbird. Intense fragrance carries 50 feet on warm evenings. Climbing bleeding heart (*Dicentra scandens*) spreads far enough

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to intertwine its acid yellow bloom with the rich purple bells of *Clematis* 'Rooguchi' and pale *Clematis* 'Little Nell.' I am especially fond of *Clematis viorna*, whose light green and purplish bells reward those who take time to examine them closely. The matte yet luminescent foliage of the bleeding heart is an especially pleasing contrast to the other foliage. It covers the 10 feet below the honeysuckle.

Choisya ternata 'Sundance,' at the base of these climbers, shows well in summer but is at its best in winter when the vines and lilac are leafless. The brilliant lime yellow foliage of the Choisya, mixed with the more subtle, golden *Acanthus mollis* 'Taff's Gold,' and *Acorus gramineus* 'Ogon,' draws the eye away from the bare stems. This effective little trick of distracting the eye constantly surprises me. At first this foliage combination seemed too vivid, but without their gold tones, these plants would be less effective at drawing the eye outside. I feel sad when the vines lose their leaves, then delighted that the view opens and light streams in, especially on sunny days. In summer's vine-smothered jungle, something is always about to bloom, in bloom, or blooming a second time, a secret garden surrounded by a jewel-strewn tangle. Miraculously, the four of clubs has become my ace of diamonds.

A couple of pots of leftover *Mahonia* x *media* 'Charity,' currently sitting on the terrace, have been the focus of the hummingbird's attention. The color's right, excellent tonic for dull winter days, and the texture an echo of the jagged and dramatic foliage of the Acanthus. It's obvious that they will be the next conscripts in this scene. ~

Dan Borroff is a landscape designer practicing in Seattle. He may be reached at 206-329-0931.

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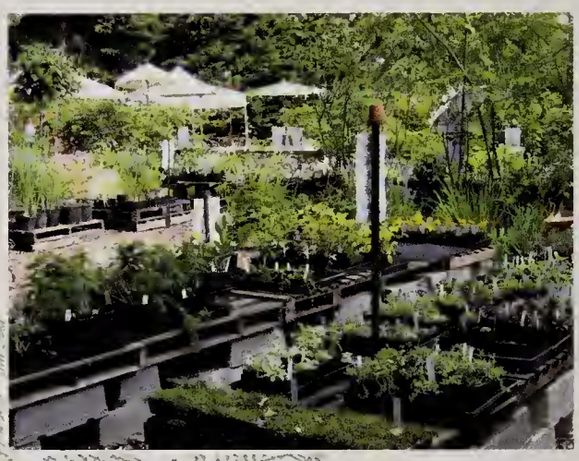
Plant Donations, a Perennial Favorite

TEXT AND PHOTOS BY LYNN BERGELIN

My first introduction to Arboretum Foundation Plant Donations occurred when I purchased a 4-inch tall, white rugosa rose for a dollar. That was about 10 years ago, and it is now a 6-foot beauty that blooms all summer. I still shop at Donations. It is one of the best "nurseries" around, for the prices are reasonable and, more important, plants are sometimes available at Donations that are difficult to locate elsewhere. That is because all plants sold have been donated, most of them by Arboretum Foundation members. Once plants are sold, earnings are given to the Foundation. Last year Donations raised $29,000, which represents a lot of plants, since the average price is probably $5. Donations is located in the Arboretum just south of the Graham Visitors Center and the Pat Calvert Greenhouse.

Donations' Roots

Donations as we know it was started about 11 years ago by Foundation members Barbara



TOP LEFT: Plant Donations volunteers dividing plants on a brisk January day. From left to right: Rita Cloney and Joan Karkeck. **TOP RIGHT:** Plant Donations, completely ready for visitors to the Summer Solstice Sale, June 2004. **BOTTOM:** Solstice Sale volunteers break for lunch. From left to right, Mike Galvin, Barbara Harris, Lee Scrivanich, Joanne Hochberg, Lu Iverson and Pat Negron.

Harris and Rita Rae Cloney. It was an idea that had been floating around for some time. At the annual FlorAbundance Spring Plant Sale, back when Arboretum Foundation members actually ordered and sold plants themselves, there had always been a table of plants donated by members. This popular section kept expanding each year and, as always happens at sales, there were a few unsold plants. Soon people were trying to figure out how to extend the idea of selling these donated plants to raise money for the Arboretum. Harris and Cloney took on the challenge. They found ways to winter over and sell the plants as well as to spread the word to gardeners that plants could be donated, not just for specific events but during eight months of the year. Donations has been expanding ever since. It is now open every Wednesday and the second Saturday of each month from April to October.

Rain or Shine, Sleet or Snow...

On the first Wednesday in March, Plant Donations volunteers come out of winter dormancy. They show up no matter what the weather. It is a hardy bunch, who know their work will be done totally outside in rain or snow or 90-degree summer heat. This year some volunteers broke dormancy early when there was an emergency donation of plants. It was a case of collect them or lose them. Volunteers questioned their sanity while potting up nearly 120 plants on a 30-degree January day, but the job was done, and enjoyably.

In March volunteers are ready to go to work, and there is a lot to do. Excitement and energy are high. The Early Bloomers Plant Sale, on the second Saturday of April, is just a few weeks away. It is one of the earliest plant sales of the season, and local gardeners are eager to get a new gardening year started. Volunteers have to set up and be ready for enthusiastic crowds.

The first job is to arrange the wood pallets on which plants are displayed. Each year the layout is a new puzzle, as volunteers try to find the sunniest areas under trees that grow ever wider and taller. The challenge is to place sun-loving plants where they get the best light yet maintain alphabetical order in each broad category of shrubs, trees, vines, native plants, groundcovers, grasses, iris, daylilies and perennials.

Next—and this is the most exciting part—plants are pulled from their winter bins. Most are showing signs of life; others may emerge later. Those plants not ready for sale are set aside to recover. Each pot must have its correct plastic label. Crows sometimes steal them (for unknown reasons), and volunteers suspect squirrels also take them when backs are turned.

Donors Start the Process

About this time local gardeners begin to stir in their gardens, and donated plants start to arrive. The plant selection depends entirely on what is donated. Most plants come in plastic bags or cardboard boxes one or two at a time, but occasionally a fully loaded van or truck arrives. Donors are encouraged to leave a label, which can be as simple as a scrap of paper noting variety and color. Without a label volunteers can usually identify the plant but can't guess the color.

As the donated plants come in, volunteers divide, pot, groom, label and set them out for sale or place them in a recovery area. Some volunteers are good at dividing grasses and ferns, which is a knife and hatchet job. Others have the patience to pot stoloniferous groundcovers, while others with pruning skills turn ugly duckling shrubs into swans. Volunteers work independently, doing whatever job needs doing.

Some really choice specimens pass through Donations—not only leftover plants such as those vigorous growers *Ajuga* and *Lamium*. At any time there may be on hand hebes, Japanese maples, euphorbias, sword ferns, David Austin roses, hydrangeas, hellebores and hostas, to name only a few. 2005 may be the "Year of the Azalea" because of the number for sale

this spring. As a group, volunteers decided not to sell ivy, which can be invasive, but there are good deals on cyclamen and other groundcovers as effective as ivy.

Special Sales

Donations holds two special sales each year: **Early Bloomers**, featuring early spring-blooming plants, the second Saturday in April; and the **Summer Solstice Sale**, the third Saturday in June. The Solstice Sale features drought-tolerant plants and is timed perfectly to precede the two driest months.

Dry July and August tend to be a slow time at Plant Donations. As the weather heats up, Seattle gardeners stop working in their gardens and have fewer plants to donate. However, when September rains begin a rush of new plants comes in. If word is spread that more plants or more of a particular plant are needed, Foundation members come through, and Donations is soon fully stocked, just in time to participate in the Foundation's **Fall Bulb & Plant Sale**, this year on October 2. This last sale of the year generates as much tension and anxiety as does Early Bloomers, for it is the last chance to buy plants before everything goes dormant and Donations closes for the winter.

The Donations crew spends the last two weeks of October putting everything away for the winter. Plants go into bins; pallets are stacked; potting tables are turned over and the picnic table, site of many a volunteer lunch, is covered. Next March, volunteers will be back to start the cycle again.

Drop by any Wednesday or second Saturday from April through October to get acquainted. Both customers and volunteers learn a lot about plants at Donations. Some volunteers are Master Gardeners, and others just know a lot about gardening from personal experience. Volunteers can answer most garden-related questions and help find a choice plant for a particular location in your garden. Plant Donations will likely become a source of plants for your garden as it has for many others. One repeat customer recently said, "You have good plants at good prices, and it all supports a good cause—I can't do better than that." And neither can you. ~

Lynn Bergelin is a long-time member of the Arboretum Foundation and an energetic Plant Donations volunteer who writes and gardens in north Seattle. For information about sharing plants or volunteering at Plant Donations, contact the Arboretum Foundation office at 206-325-4510 or Lynn Bergelin at bergelin@comcast.net.

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HERITAGE PERENNIALS

Container Makeovers

By Peggy Campbell

"Extreme Makeovers" probably began with a container gardener—someone who knew the immediate satisfaction of instant change. In fact, container garden makeovers are fast, easy, affordable and can be readily tackled by a team of one (you). Well, okay, maybe an assistant would be nice, to hoist pots, soil and plants. The result is a quick, long-lasting, personalized garden that changes on its own seasonally. The process of ripping out the old can be cathartic. And dramatically transforming outdoor places into personalized spaces is pure pleasure. The basics are easy, the plants are fun and the season is now—just before summer sets in.

Start with the container. If yours is a masterpiece, select plants that show it off. If your pots are looking tired and worn, consider choosing something new. Check out the latest choices, featuring subtle colors that draw attention to the plants themselves and are durably frost-proof.

Integrate elements from your home and surrounding garden into the design. Inspiration often comes from colors, textures and details used in paint, fabric, stonework and architectural styles.

A container makeover that stands the test of time is one that expresses personal style

LEFT: This new introduction, *Euphorbia* 'Diamond Frost,' will trail invitingly over the edge of a container. **TOP RIGHT:** *Coleus* 'Curley Speckles' will grow well, even in full sun, and will grow to 30 inches in height once summer warmth arrives. **BOTTOM RIGHT:** A new *Heuchera* introduction, *H.* 'Marmalade' thrives both in shade and in part sun.

and yet changes with the seasons. To capture this, look first for a centerpiece plant. Add perennials that take turns sharing the spotlight over a long season. And finish off with specialty annuals chosen to complement the whole.

And before heading to the nursery to select new plants, consider the natural light the container will receive both in summer and winter.

Entryways

Entryways are natural locations for containers. They add "curb appeal" and are a gracious way to greet guests. Locating containers in the open, out from under eaves, provides both increased light and natural rainfall. Under-the-eave plantings need additional attention to watering and benefit from an occasional hosing down.

Framing an entryway is easy with plants that provide slender height without the fuss of shearing or pruning. Great choices for sun include sky pencil Japanese holly (*Ilex crenata* 'Sky Pencil') or green tower boxwood (*Buxus sempervirens* Green Tower™). For a spiral effect, trim the dense, blue-green, dwarf Italian cypress (*Cupressus sempervirens* Tiny Tower™). The vertical accent these living columns provide is ideal in small gardens as well. At full maturity they span a mere 2 to 3 feet yet tower to a height of 10 feet. Best of all, these evergreen sentinels provide year 'round interest in the garden.

Shady entrances under eaves are prime locations for containers yet can quickly become container makeover candidates if the garden hose is not kept handy year 'round. One plant that thrives in shade is sweet box (*Sarcococca humilis*). This evergreen shrub is not only a handsome backdrop for its planting companions, its winter fragrance provides a welcome greeting to all who pass by. Further brighten the spot with the chartreuse perennial foliage of luminous *Helleborus foetidus* 'Gold Bullion,' *Heuchera* 'Lime Rickey' or the brilliant gold and red X *Heucherella* 'Sunspot.' Then add spring flower profusion with *Tiarella* 'Spring Symphony.' For the summer season, drop in the golden variegation of *Lysimachia* 'Walkabout Sunset' and the profusion of small single *Fuchsia* 'Princessita,' with its deep rose corolla backed by white sepals. Finish off with the unbeatably vivid tones of impatiens. Add color in winter through glass art, found objects and seasonal decorations.

Plants as Art

Well-placed, unique plantings are as integral to the garden as art is in the home. Set off by simple surroundings, they focus the eye and complement the setting. Specimen plants to consider include Harry Lauder's walking stick (*Corylus avellana* 'Contorta'), Japanese maples and dwarf conifers. Although uniquely different from one another, they all require ample room in containers for roots to grow over time.

This striking form of *Corylus* captures attention throughout the year, with its twisting branches, rounded form and drooping wintertime catkins dripping like jewels from branch tips. This slow-growing beauty prefers full sun or part sun and a wide container, especially when under-planted with low-growing groundcovers, perennials or bulbs. Winter-blooming crocus and the Great Plant Picks (GPP) winner, hardy winter-blooming cyclamen (*Cyclamen coum*), heighten winter interest.

Japanese maples (*Acer palmatum*), particularly laceleaf varieties, are natural choices. *Acer palmatum* 'Inaba Shidare,' a classic weeping red-leaf cultivar, grows 5 feet tall and at least as wide in containers and grows well even in hot sun. Another ideal, red-leaf variety is the upright, compact growing *A. palmatum* 'Shaina,' a GPP winner. Grow it in full sun, but do protect the foliage from burning.

Dwarf conifers, of which there are many habits and colors to choose from, include the sun-loving dwarf Hinoki cypress (*Chamaecyparis obtusa* 'Nana Gracilis') with whorled dark green branches, the slow-

growing, blue-green, dwarf Irish juniper (*Juniperus communis* 'Compressa')—referred to as the 'garden exclamation point,' and for part shade, the rounded form of weeping hemlock (*Tsuga heterophylla* 'Thorsen's Weeping')—another GPP winner.

Perennial Accents

Perennials that take turns sharing the spotlight over a long season make ideal candidates for container gardens. Selecting varieties that are terrific in and out of flower will narrow the list. Prime choices include coral bells, gaura and euphorbia.

The explosion of new coral bells (*Heuchera*) varieties is a bonus for container gardening. Versatile for shade to part sun, these compact growers have beautifully patterned evergreen leaves that run the color spectrum from dark bronze ('Plum Pudding,' 'Cherries Jubilee') to pewter and green ('Green Spice,' 'Mint Frost') to gold ('Amber Waves,' 'Marmalade'). And crossing them with foamflower (*Tiarella*) has produced intricate leaf patterns and shapes and a profusion of bloom. X *Heucherella* 'Sunspot' offers golden yellow foliage with red centers.

"Filler" is a florists' term for branches of perpetual bloom with small flowers along a long stem. The butterfly-shaped pink flowers of *Gaura lindheimeri* 'Karalee Pink' are more versatile than that. Providing non-stop bloom throughout the summer, this sun-loving plant holds its own as the sole source of blossoms within a container. Yet it readily joins the backup chorus when planted alongside divas, such as *Dahlia* 'Classic Rosamunda.'

Almost rivaling coral bells in the number of new selections, Euphorbia varieties have become a garden essential, both in and out of containers. Leading the way is the award-winning *Euphorbia* 'Diamond Frost.' Uniquely delicate with its white tipped bracts, this compact mounding plant almost trails over a container's edge. Another new offering is *E.* 'Rudolph,' sporting a button of red new growth over dark green foliage, reminiscent of its namesake. And the slender silver green leaves of the compact *E. pithyusa* 'Faded Jeans' will combine well with dark green companion plants. All of these new varieties flourish in sunny garden spots.

Bold Strokes

Northwest gardeners' love affair with all things tropical adds drama to the garden. Vivid flower color, dramatic variegation and large leaves bring the essence of the tropics into any garden setting.

Recent introductions in coleus (*Solenostemon scutellarioides*) outperform their older counterparts in vigor, size and color. And these new selections thrive and become more vivid in sunny spots. With so many to choose from, it is tempting to add more containers just to have them all. 'Curly Speckles' starts off rather small and then explodes into growth as temperatures warm. True to its name, speckles of red dot the otherwise green outlined, primrose yellow leaves. Expect it to grow up to 30 inches tall. 'Religious Radish' sports bright rose leaves with dark red centers, all highlighted by thin white stripes. And then there's the robust 'Pineapple' that flutters its contrasting leaf colors in the slightest breeze. Its purple undersides accent golden yellow leaves narrowly edged in purple serration.

Intoxicatingly fragrant, the hardy gardenia (*Gardenia jasminoides* 'Kleim's Hardy') is reminiscent of its tropical cousin yet survives to lows of 15 degrees Fahrenheit. Its handsome glossy green leaves and the classic aroma of its single white flowers bring the tropics to any garden, providing the finishing makeover touch. ~

Peggy Campbell is a gardener and horticulturist who has taught gardeners to design containers for more than 20 years. She is Director of Education & Marketing at Molbak's, where she has worked for 23 years. She may be reached at pcampbell@molbaks.com.

ABOVE: The golden-orange stems of *Salix alba* var. *vitellina* 'Britzensis' combined with the purple stems of the ghost willow, *Salix irrorata*, covered in ghostly white bloom, make a memorable picture.

Wee and Wonderful Willows

TEXT AND PHOTOS BY RICHIE STEFFEN

I almost hesitate to write about willows—plants that are often talked about with some disdain. I suppose too many of us were not completely virtuous as children and received our introduction to the genus *Salix* by switch. Personally, I would rather not talk about my first experience with willows and would prefer to dwell on my current minor obsession with these plants. Contrary to what many may think, not all willows are best admired from a neighbor's yard at considerable distance. There is actually a wonderful group of small willows that, through thoughtful

ABOVE: The buds of ground-hugging *Salix lindleyana* pop up through its companions, such as this *Sedum* 'Island of Sakhalin.' **LEFT:** The stubby twigs of the Swiss willow, *Salix helvetica*, sport striking yellow buds from which cottony-white foliage emerges.

selection and good garden placement, will turn any acquisitive gardener into a true plant connoisseur.

Glowing Stems

There are several species of willow grown for their spectacular stem color. Most of them are vigorous growers that can be cut to about 1 foot tall every year in late winter. Two of the best known are *Salix alba* var. *vitellina* and its cultivar *S. alba* var. *vitellina* 'Britzensis.' *Salix alba* var. *vitellina* has bright golden stems that glow in our gray winters; *S. alba* var. *vitellina* 'Britzensis' glows with orangey-red fading to gold at the base. Established plants that are annually cut back will grow to 10 or 12 feet tall in a single season. Do not forget to cut them back; they can become full-size trees, topping out at over 40 feet!

If you do not have much space, a slightly smaller choice with marvelous winter stems is *Salix irrorata*, the ghost willow. This native of the American Southwest has deep purple stems entirely covered in ghostly white bloom. It is an upright grower typically reaching a height of 6 to 8 feet. Refrain from hard pruning; occasionally *S. irrorata* will not resprout if cut to the ground. It is best to remove only half of the tallest stems every year.

Glamorous Foliage

Many willows grown for attractive stems have very typical and rather ordinary "willow" leaves. However, there are some remarkable plants that have beautiful foliage—foliage you would never guess belonged to this genus. *Salix integra* 'Hakuro-nishiki,' dappled willow, is a spectacle of variegation. Once very rare, it is now widely available. In spring the new foliage emerges soft pink and white, gradually fading to blue-green leaves splashed in mint greens and translucent white. This shrubby plant becomes 5 to 8 feet tall with a slightly wider spread. It can burn in hot afternoon sun, so provide a protected site in good soil with regular summer water.

Two of my favorites for foliage are *Salix fargesii* and *Salix magnifica*. Both of these species have large, wide leaves that are very unwillow-like. *Salix magnifica*, on first glance, is often mistaken for a magnolia! It is an upright grower, becoming a small tree to about 18 or 20 feet. The leaves are 6 to 8 inches long and about 4 inches wide, deep green with a reddish-purple petiole (leaf stem) and a heavy, leathery texture. It is rather coarsely branched with thick, deep purple stems. It is a great choice for "stump the gardener" tours.

Salix fargesii is the Cadillac of willows. A slow grower to 12 to 15 feet with nearly equal spread, it has deep red stems dotted with fat red buds. In spring the new foliage erupts from the blood-red buds with a brilliant silver sheen, creating a sudden urge in every observer to possess this beauty. As the foliage matures to a glossy deep green, it grows to 6 inches long and 3 inches wide with a prominent midrib of deeply impressed veins rippling up the leaf. If a large shrub or small tree is not to your liking, *Salix nakamurana* var. *yezoalpina* is an exceptional groundcover as well as interesting foliage choice. Seldom reaching more than a foot tall, it scrambles along the ground, prefect for cascading over rockeries.

Silvery Shrubs

There is a trio of silver-leafed willows that I have very much enjoyed over the years: *Salix helvetica, Salix lanata* and *Salix lapponum*. They are wonderful small shrubs, perfectly at home in the average city garden or as unusual container specimens. *Salix helvetica*, Swiss willow, is quite a charmer. This low-mounded plant seldom exceeds 3 feet in height with a 4-to-5-foot spread. It has a compact habit accentuated by its short, somewhat stubby twigs. With virtually no pruning it will become an almost perfect dome. The real show stopper is this plant's fantastic foliage. It emerges in the spring, pure cottony white, maturing to a lovely whitish-gray.

Salix lanata, woolly willow, has a more rounded habit with a very similar whitish-gray leaf. Woolly willow hails from northern Europe and the Russian Arctic, giving it superb hardiness. Its thick stems and dense form create a gnarled specimen with age. Typically, it will reach about 3 to 4 feet high, with older plants eventually topping out at about 5 feet tall. With careful pruning, height can be limited and its sculptural form enhanced.

Salix lapponum, Lapland willow, has a distinctive upright habit. It will ultimately become an oval-shaped, compact, silvery bush reaching 3 to 5 feet tall and slightly less in spread. All three of these species grow well in average garden conditions, but they will also tolerate moist sites and gravelly, sandy soils with some occasional watering. If you have a little more room, try *Salix repens* var. *argentea*, silver creeping willow. Graceful and delicate stems rise from the ground at a slight angle to form a spreading clump about 3 to 4 feet tall and 6 to 8 feet wide. Oval leaves clothed in silvery-white hairs cover the branches, creating a beautiful garden presence. Native to the coastal dunes of Europe, it is salt spray-tolerant and performs admirably in sandy, well-drained soil. It also withstands some drought but does appreciate occasional summer water.

Small Challenges

Unbelievable as it may seem, from the same genus as the large weeping willow there are miniatures that can be grown to maturity in a small container. Many of these tiny willows prefer an open location with no competition and rock garden-like conditions. Unlike many other members of the genus, these small plants can be quite challenging to grow. They need excellent drainage and regular summer water.

Low-growing *Salix lindleyana* is a complete ground-hugger. Mature plants are rarely over a few inches tall and reach only 2 to 3 feet wide. The slender, pliable branches snake along the ground, weaving between rocks and popping up through low alpines. I have found it a great companion to ground-cover sedums. Another low grower is *Salix myrtilloides*, swamp willow. I have not grown this plant yet, but have already placed an order for a selection called 'Pink Tassels,' found in a recent catalog. The few plants I have seen have been relatively prostrate, but the catalog states that 'Pink Tassels' willow will reach 2 feet tall. It has long maroon filaments surrounding the flowering catkin in the spring. I can hardly wait to see how it does in my rockery.

A few years ago I acquired *Salix reticulata*. This interesting dwarf has a notorious reputation for quickly failing under cultivation. Fortunately, I purchased a form from Mt. Tahoma Nursery that has proven itself successful in our climate. This very slow grower has short twisted branches, giving it an old, gnarled framework to support round, deep green, nickel-sized leaves. Do not let it dry out. It can scorch quickly in hot summer sun, so it is best grown in bright open shade.

The holy grail of alpine willows is *Salix* x *boydii*. This unlikely hybrid of *Salix lanata* and *Salix reticulata* combines the best of both parents. It is a very small, compact grower, forming an upright, slightly rounded shrub taking several years to reach 6 inches tall! Adorable round leaves cluster tightly about its short stubby twigs. It looks like a tiny bonsai willow. This hard-to-find plant is a stickler on its growing requirements: good drainage, regular watering, and a choice location out of the hot sun.

Delights like these should find a home in everyone's garden. Perhaps it would help ease your childhood memories to know that very few of these can be considered "implements of correction." ~

Richie Steffen is Coordinator of Horticulture for the Elisabeth C. Miller Botanical Garden in Seattle.

Prunus emarginata
(P. nigra)
Bitter cherry
or Canada plum

Salix lasiandra
Pacific willow

A Conversation with Mike Lee

By Dan Hinkley

Illustrations by Mike Lee

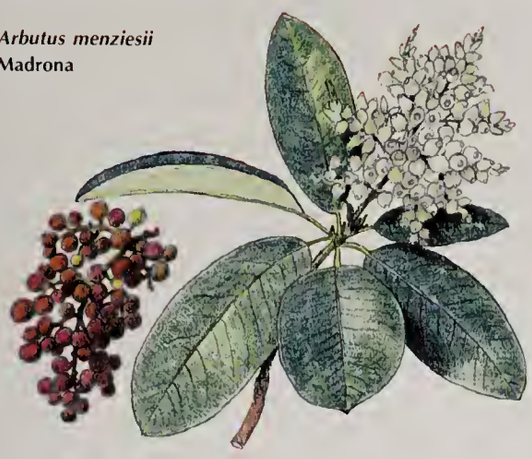
Quiet and unassuming, Mike Lee, along with his nursery Colvos Creek, has been a vibrant tour de force in Pacific Northwest horticulture for nearly 30 years. His commitment to good plants and planting, in particular to unusual woody plants that possess traits of drought tolerance, has forever and positively altered the landscape of the greater Puget Sound and our perceptions of what gardens can and should be. Dan Hinkley joins Lee in a conversation about the history and philosophy of his interest in horticulture.

• **Dan Hinkley:** *Long before I even considered starting a nursery, in fact before I even arrived in the Pacific Northwest, you were a significant presence within the horticultural community. How did it all begin?*

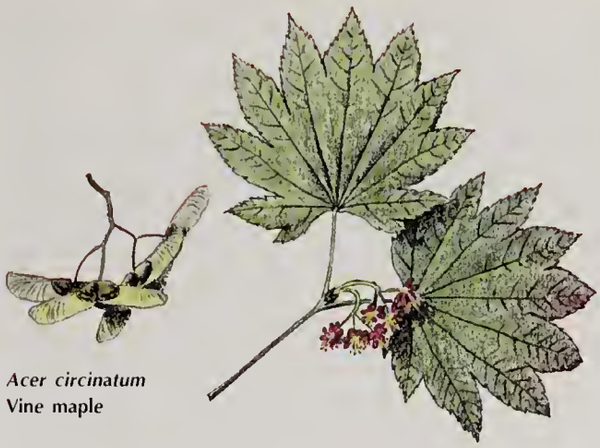
▪ **Mike Lee:** I started the nursery on Vashon Island on land that I bought with an earlier partner in 1976 (the land Peter Ray of Puget Garden Resources owns now). That partnership folded in 1980, and I took a break from nurseries until 1987, when Hector Gaxiola invited me to start again on

Myrica californica
Pacific wax myrtle

Crataegus douglasii
Black hawthorn



Arbutus menziesii
Madrona



Acer circinatum
Vine maple

his property. That land was sold in 1990, and I moved to the property of John and Becky Rogers, where we are today. John has been collecting bamboo for years.

• **Dan Hinkley:** *Are you a native or an exotic invasive?*

▪ **Mike Lee:** Except for a year in Southern California at the age of 9, I have always lived in the Seattle area, which makes me, I guess, part and parcel of the flora of the Pacific Northwest. I graduated in Landscape Architecture from the University of Washington in 1973 and worked for six years at Jongejan Gerrard McNeal Landscape Architects in Bellevue.

• **Dan Hinkley:** *It seems like many of us with nurseries simply grew into it from more youthful obsessions. Is that true with you as well?*

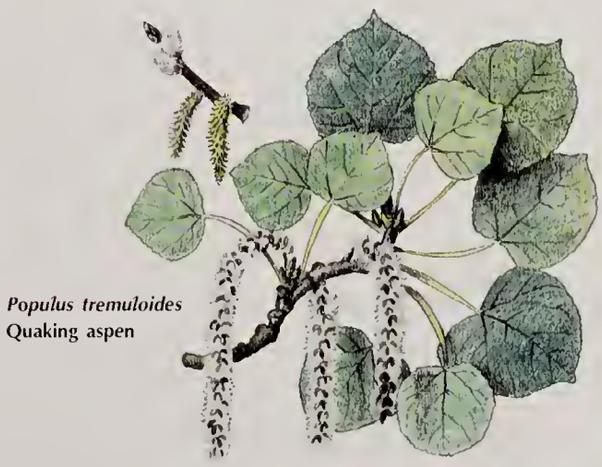
▪ **Mike Lee:** Well, yes. Before Vashon, I grew plants in the back yard of the house I shared on Capitol Hill while attending the University. I sold plants at the Pike Place Market from 1972 until the early '80s. I had been interested in plants for a long time and helped my grandparents in their vegetable garden way back. I always had a garden of my own.

In school, I was lucky to get my Ornamental Plants class from Dr. Hitchcock. It was the last one he taught. It was quite an avalanche of plants, including rare ones, but I loved it. The tours of his garden, now gone, were a treat. Also, Art and Mareen Kruckeberg have been an inspiration.

• **Dan Hinkley:** *I am always curious if other young gardeners had early mentors, and who they were. Did you have one?*

▪ **Mike Lee:** I remember going to camp in fifth grade and having a Mr. Lemon show us the native trees. It must have had a big impact because it remains so vivid. I was lucky to have been around the

Cornus nuttalli
Pacific dogwood



Populus tremuloides
Quaking aspen

DAN REYES

Mike Lee and a Colvos Creek greenhouse

gardens at the Hiram Chittenden Locks when Carl English was there. He was so happy to find anyone interested in palms, evergreen oaks (his favorites) and the other exotic plants he had there. He often saved acorns for us (my friends from school and me) and once spaded up a bunch of palm seedlings for me from under one of the trees.

• **Dan Hinkley:** *He sounds a lot like J.C. Raulston, whom I know you were acquainted with. Did he have any impact on you professionally?*

▪ **Mike Lee:** Actually, we got into mail order when J. C. Raulston asked us to ship the plants he couldn't cram into his suitcase after a visit to our nursery in the early 1980s. The plants arrived in a jumble of potting soil, but they survived. After a kindly tutorial from him on how to pack for shipping, we were in business. He often mentioned us to his lecture audiences and many of our best customers came to us that way.

• **Dan Hinkley:** *I know you have had a long association with Washington Park Arboretum. Has it increased your knowledge of plants and those species you have zeroed in on at Colvos Creek?*

▪ **Mike Lee:** The Arboretum has always been fundamental to my career. I've been going there since the days of Brian Mulligan and Joe Witt, who were always supportive and helpful, which has been true of the staff to the present. I also am fortunate to have friends and contacts in other gardens, especially California, where I can get material. Friends here and around the country are always sending seeds and plants, generous as plant people always are.

• **Dan Hinkley:** *You have worn two hats during your lifelong associations with plants, both grower and designer. How has your design work impacted the palette of plants that you now grow?*

▪ **Mike Lee:** Initially, my work at Jongejan Gerrard McNeal was on large public and commercial projects. The scale of these allowed me to use the drought tolerant, native and otherwise interesting plants that I wanted. The nurseries and contractors would somehow find or raise them. Gradually other nurseries came to know these plants, and they made their way into their mainstream inventories. I like to think I helped make wax myrtle, salal and evergreen huckleberry, for example, more popular and available this way. They were not really available before then.

• **Dan Hinkley:** *You mention drought tolerance. When did that issue begin to creep into our local consciousness?*

▪ **Mike Lee:** Drought-tolerance was not much on anyone's mind when I first started out, but it slowly began to get attention after we made it a requisite on many early projects. The fact that the rainy Northwest has a Mediterranean weather pattern has gradually sunk in, and now it's second nature to plant with that in mind.

• **Dan Hinkley:** *Actually, I misspoke. You wear three hats, the third being as a talented botanical artist. How did that begin?*

▪ **Mike Lee:** After graduation, I taught evening classes in ornamental plants for about 10 years. I have always enjoyed drawing and have illustrated a few plant books, notably "North American Landscape Trees" by Arthur Lee Jacobson. I also illustrated a series of posters on native trees.

• **Dan Hinkley:** *I did not begin my nursery until the late '80s, and still I have witnessed*

an incredible shift in the palette of plants we use in the Pacific Northwest. You have certainly noted that as well, I am sure.

▪ **Mike Lee:** When I was starting with plants, there were few nurseries like ours here. I especially remember the Hollandia Nursery in northeast Seattle. There were neat rows of beautifully grown plants that were rare but deserved to be used. I also got to visit with Lester Brandt at his amazing place not far from where we were living in Federal Way in the late 1960s. His little cabin was surrounded by huge, big-leafed magnolias, embothriums, Nothofagus, patches of Gunnera and rows and rows of huge rhododendrons. I had never seen some of those plants before.

• **Dan Hinkley:** *How about your own personal evolution as a plantsman?*

▪ **Mike Lee:** My taste in trees has not changed all that much over the years. I had more tropical interests long ago and still enjoy and use palms, eucalyptus and such. But broadleaved evergreen trees have been my major interest. I hate it that a commercial or public tree planting here is largely indistinguishable from one in Chicago or Boston, when we are several zones milder. Where we plant around parking lots, malls and city streets, we need lots of green foliage to cut the winter gloom and soften the harshness year 'round. Too much planting design is perfunctory, and not only in the Northwest.

Aside from broadleaved evergreens, I like trees that have some strong seasonal interest. I like Sorbus, Embothrium, Japanese red pine, Chinese red birch, anything that blooms in winter. I like dramatic forms—magnolias, sumacs, Alaska cedar—but I dislike gardens that contain all prima donnas. Landscapes need a matrix of relatively "plain" plants to allow the stars to shine and give the eye a rest in between.

• **Dan Hinkley:** *What books influenced you when you first started out?*

▪ **Mike Lee:** I was inspired in college by several books, especially "Trees and Shrubs for Pacific Northwest Gardens" (Grant) and "Shrubs for the Milder Counties" (Arnold-Forster). I must have checked the latter out of the library 10 times. I also remember seeing a large palm tree in Tacoma, and then some at the Locks, and getting off on that track. At the University of Washington I was part of a group of plant lovers in a field that is supposed to focus on design rather than materials. We tried to supplement the minimal plant instruction we received by keeping a display of labeled specimens, changed weekly, near the landscape studios.

Quercus garryana
Oregon white oak

• **Dan Hinkley:** *Your design business seems to monopolize the lion's share of your work week. Can you tell me more about it?*

▪ **Mike Lee:** I opened my practice in 1979 and do mostly residential work. I bring a philosophy of making the garden work year 'round and expressing the personality of the owner—about the same as any other landscape architect. But I emphasize regional natives, drought tolerance and low maintenance, which is what I am usually asked for. The last characteristic is the primary attribute my clients and many nursery customers seek in plants and gardens. It is generally all about maintenance. I normally design for people who have to worry about deer, kids, water bills, summer vacations and so on. At the same time they want color, excitement and sometimes trendiness.

• **Dan Hinkley:** *I am sure you must have some thoughts about the direction we seem to be taking in Pacific Northwest horticulture. Is*

the excitement here to stay, or is it beginning to quiet a bit?

▪ **Mike Lee:** I certainly think that the interest in plants and gardening is here for the long term. As we fanatics know, plants are deeply satisfying, and the enjoyment of growing things tends to last a lifetime. It seems that since the late '60s, when plant selection and gardening interest had bottomed out, there has been a continuous explosion in interest. The fast-paced, electronic lifestyle needs some relief and contrast.

In this area, there is new appreciation of our climate and with it an interest in natives and Mediterranean plants. I see parking strips turned into gardens, lawns replaced by colorful shrubs and perennials and thousands of street trees where there was only concrete. Good plants that were rare are common. Gardens have a rich and spontaneous look that used to be rare. People are eager for the new and unusual.

• **Dan Hinkley:** *What about our plant palette in the Pacific Northwest? Do you suspect it will continue to change as well?*

▪ **Mike Lee:** New plants have become much easier to find since that low point 30 to 40 years ago. It seems that the excitement over new plants and styles of design really got rolling in the '80s. Today, nurseries typically carry three or four times as many kinds of plants as they used to. One area that has been slow to expand is interest in trees, but that is somewhat understandable since they are slow to raise. Also, we are somewhat at the mercy of the huge wholesale growers in Oregon. They ship most of their trees to zone 6 and under and don't bother to raise anything special for us in the Northwest. It has limited the number of broadleaved evergreen trees we get. I'm happy to at least see the many evergreen

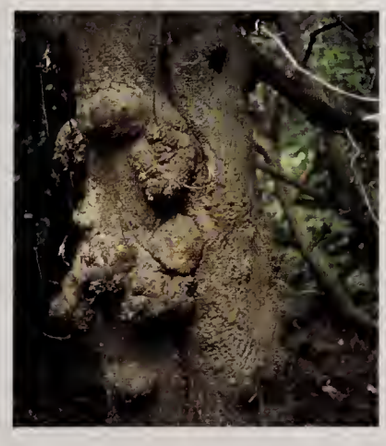
continues on page 29

"Trees of Seattle"

YOU CAN HELP GATHER INFORMATION FOR THE SECOND EDITION!

TEXT AND PHOTOS BY ARTHUR LEE JACOBSON

After years of research and months of writing, the first edition of "Trees of Seattle" was published in February 1990. This year an update is underway with publication planned by the February 2006 Northwest Flower & Garden Show. The first edition



describes and cites specific examples of an impressive 740 different kinds of trees within the city limits. Now, listed on my Web site, are over 420 additional trees possibly to add to this second edition.

The absence of any particular tree from the first "Trees of Seattle"

TOP: This white elm (*Ulmus americana*), on Ravenna Boulevard, just east of 15th Avenue Northeast, is more than 88 feet tall with a trunk almost 15 feet in girth and a branch spread of 111.5 feet.

INSET: : An Arboretum specimen, this cascara (*Rhamnus purshianus*) is the largest example of this native species known in Seattle; its trunk is about 4 feet in girth.

A stand of pussy willow (*Salix bookeriana*) located at 31st Avenue East and East Thomas Street includes Seattle's largest specimens—more than 30 feet tall. This is a short-lived native species.

resulted from one of the following reasons: It was overlooked or missed (e.g., Japanese horse chestnut, *Aesculus turbinata*). It was misidentified (e.g., Spencer Hollywood plum, *Prunus* 'Spencer Hollywood'). It was not yet sold locally (e.g., Dancer pear, *Pyrus betulifolia* Dancer™). It was ignored intentionally (e.g., almost all crabapples—*Malus* spp. and hybrids—as well as Japanese maple cultivars).

The book's first edition was well received critically, sold well, and is even now prized, despite being badly dated. Used copies cost far more than the original price. The updated edition has the following goals: To add trees that are new. Delete trees that are gone. Update size measurements. Supply more estimated ages and planting dates. Indicate changed scientific names. Improve text details wherever possible. Update the suggested reading to include Web sites. Increase the number of illustrations and reflect what the writer has learned in the intervening years.

The hope is to keep the book about the same size (less than 500 pages), so it can fit easily into a purse, large pocket or glove box, yet still add much more information. Limiting what fits into the book ensures that only the best survives the editing process—the weak links shall be left out of the chain.

Examples of weak links include the following: Shrubby species that rarely achieve tree stature. Cold-tender species likely to be killed to the ground in our next severe winter. Trees so young and rare they are not established. Relatively rare crabapples—unique because so many different kinds are grown here. The first edition included only Seattle's lone native crabapple species and its hybrid. Now, after years of study, over 100 different crabapples are known in Seattle. How many can fit in the book? The top 20? Or is it better to cite fewer examples per tree, but more different kinds of trees? Questions such as this must be resolved.

Seattle's Tree Diversity

To the surprise of most, no city on earth has more different kinds of trees than Seattle. The lucky combination of location, climate,

This red oak (*Quercus rubra*), on the University of Washington campus, is 91 feet tall; its trunk is more than 15 feet in circumference, and its branch spread is 112.5 feet.

topography, and history, and having in the city a major arboretum and university, have contributed to the well over 1,000 different kinds of trees within the city limits—excluding numerous taxa grown only in Washington Park Arboretum.

Working on "Trees of Seattle" is an exciting intellectual challenge that includes learning about these many trees, evaluating them objectively, recording their quantity, performance, location and size, and reading about them so that, in turn, sound facts can be offered to readers. It is felicitous that a person who enjoys such research so thoroughly has a city so rich in trees to explore!

Though trees found only in the Arboretum are excluded, the book cites examples of Arboretum specimens of citywide importance. For example, Seattle's largest hornbeam-leaf maple (*Acer carpinifolium*) is an Arboretum specimen 33 feet tall, growing near the Japanese Garden parking lot. This 1953 accession is wider than tall, and was not in the first edition of "Trees of Seattle" because at

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that time I knew of no others in the city. Its habit is so bushy and its fall color so horrible that its weird, non-conformist leaves alone save it from total condemnation. I now know of one other example in Seattle.

Not far away from the hornbeam-leaf maple grows the devil maple (*Acer diabolicum*), but unless someone helps me find another one in Seattle, beside those at the Arboretum, this species of uncouth appearance yet amusing name shall be kept out of the book.

Updating the book is systematic. First surveyed are those places with the most diversity of cited trees. Other than the Arboretum, hot spots include the University of Washington campus (more than 500 kinds of trees), Carl English Gardens at the Hiram Chittenden Locks (more than 250), Green Lake (about 200), and Volunteer Park (175).

Measuring Growth

Trees whose size merit it are measured and notes taken as to their locations so readers can find them. In the first edition, most of the trees were measured in 1987 or 1988 (a few earlier, a few in 1989). The next edition will contain 2003 measurements, but most will reflect the 2004 growing season, some, 2005. It is interesting to observe the growth rates of various trees in the intervening years. Here are examples of trunk circumference increases: European ash (*Fraxinus excelsior*) at Madrona Park: 6 feet, 8 inches then and 8 feet, 4 inches now. Atlas cedar (*Cedrus atlantica*) at Holy Names Academy: 11 feet, 3 inches then and 15 feet, 6 inches now. Silver linden (*Tilia tomentosa*) at 21st Avenue NE and NE 50th Street: 13 feet, 2 inches then and 14 feet, 10 inches now. Red oak (*Quercus rubra*) on the University of Washington campus: 12 feet, 3 inches then and 15 feet, 3 inches now. Pacific yew (*Taxus brevifolia*) at Lincoln Park: 10 feet, 2 inches then and 10 feet, 11 inches now.

Tree heights are more difficult to measure. For the first edition I used a clinometer with

These cluster pines (*Pinus pinaster*), along Woodland Park Zoo's western border, are Seattle's largest specimens.

a 100 foot steel tape measure. Now high-tech lasers exist—faster and more accurate. Here are some height increases for specific trees: European beech (*Fagus sylvatica*) on Lake Washington Boulevard: 120 feet then and 127 feet now. Caucasian fir (*Abies nordmanniana*) at Volunteer Park: 76 feet then and 94 feet now. Coast redwood (*Sequoia sempervirens*) at Madrona Park: 132 feet then and 153 feet now. Sassafras (*Sassafras albidum*) at Seward Park: 75 feet then and 88 feet now.

Also it will be fun to determine the widest-branching tree in Seattle. Likely it will be a white elm (*Ulmus americana*), red oak (*Quercus rubra*) or a goldtwig willow (*Salix alba* var. *vitellina*), certainly well over 100 feet, perhaps wider than 120 feet. Currently, I am aware of a red oak 112.5 feet wide on the University of Washington campus and a white elm 111.5 feet wide on Ravenna Boulevard.

Many individual tree specimens cited in the book were lost over the years, because of old age, wind, ice breakage, severe cold, drought, fungal pathogens, root harm, light-

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ning, insects, diseases, shade, development, and even poisoning. Also people have cut down female English hollies because they want to slow the spread of their offspring.

More than 30 different kinds of trees included in the first edition may be excluded now because none remain in Seattle—or are known to grow only at the Arboretum. These were extremely rare trees to begin with, sometimes unique. Frankly, their omission will scarcely be noticed. By far the most important loss is the double-flowered, podless catalpa (*Catalpa* x *erubescens* 'Adina'). Two large old specimens died; I know of no others on the West Coast.

Help

New trees have been for sale at local garden centers and nurseries since 1990. Yet for some I am unable to cite any examples in Seattle. Readers can improve the book by telling me about examples of these trees: *Abies* x *pardei*, *Acer distylum*, *Alangium chinense*, *Betula maximowicziana*, *Bischofia polycarpa*, *Dipteronia sinensis*, *Emmenopterys henryi*, *Fitzroya cupressoides*, *Gleditsia vestita*, *Hoberia* spp., *Hovenia dulcis*, *Manglietia chingii*, *Meliodendron xylocarpum*, *Neolitsea sericea*, *Nothofagus procera*, *Parakmeria lotungensis*, *Picea likiangensis*, *Prunus Cascade Snow*™, *Pterocarya stenoptera*, *Quercus Crimson Spire*™, and *Sorbus* 'Joseph Rock.'

Please keep in mind that examples outside Seattle do not count, nor those only at the Arboretum. Young specimens hidden in back yards count, however—even if the location is not supplied in the book. At least I can write: "Sold locally since the 1990s, this species is known only in a few private gardens; one planted in 1992 is at the Arboretum." That is better than leaving out any reference to it. Moreover, a list of such trees and their locations that could not squeeze into the book may end up on my Web site.

Seattle's parks, cemeteries, schools, golf courses, reservoirs, the Seattle Center, boulevards, City Light substations, street trees and yard trees—all must be checked. The city is close to 100 square miles. So I welcome and need your suggestions and input. Please let me know of trees that you would like to see added, or improvements you desire to see in the book. This is the best city for tree diversity, and the book must record that. If you have no specific trees to share, but want to assist in other ways, give me a call. There are other ways to help. ❧

Arthur Lee Jacobson is also the author of "Wild Plants of Greater Seattle." Please send your suggestions to him at alj@consultant.com. Or contact him at 206-328-TREE. The list of trees on his Web site may be found at http://www.arthurleej.com/tosnew.html.

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You Can Help Spiders Do Your Pest Control Chores

TEXT AND PHOTO BY ROD CRAWFORD

What eats the most insects? Birds? Not even close. Bats? An individual bat eats more insects than almost anything, but there aren't that many bats around unless you live close to a Texas bat cave. Ants? In some parts of the tropics they probably hold the title, but even ants are surpassed in temperate forests and grasslands by the enormous insect consumption achieved by spiders.

These Northwest wolf spiders (*Pardosa vancouveri*), pictured here on dead strawberry leaves, will help eliminate garden pests; like almost all spiders, they are not dangerous to humans.

Spiders (mostly small, but all busily eating insects) are far more numerous than persons who needlessly fear them would like to believe. In fact, they are the most numerous land predators on the face of the earth. In any kind of decent spider habitat, spider population densities reach levels undreamed of by the blissfully ignorant arachnophobes among us.

A classic study of natural grassland in England found up to 842 spiders per square meter. (For the benighted non-metric person, a meter is 39.37 inches). In a forest carpeted with undisturbed leaf litter, ground surface populations are often in the 200 per square meter range, with as many more in the foliage overhead. Habitats that are less ideal, but still well vegetated, may have densities of over 100 per square meter. One of my Russian colleagues did an informal population study in a *Sphagnum* bog (the best of all spider habitats) and found densities of up to 2000 per square meter!

With all those hungry jaws out there ready to snap, what chance does an insect have? One classic study tried to trace the fate of all insects and other small creatures on the floor of a plot of experimental forest (by "tagging" everything with a short-lived radioactive isotope), and found that in the course of a year, 44 percent of the insect biomass passed through spiders; in other terms, spiders annually consumed 2.5 times as many insects as the total present at any given time. There is evidence to show that in many cases spider predation on insect populations exceeds 50 percent. In temperate zone habitats like those of the United States, spiders are definitely the main consumers of insects and the main controls on insect populations.

Good Spider Habitat

Now what makes for good spider habitat? There has to be something (usually insects) for the spiders to feed on, but even more importantly, spiders have to have some protection from the elements. If you're a three-millimeter long spider, having one raindrop fall on you is a major trauma; exposure to dry air and

sunlight with nothing to drink is fatal in less than a day. The protection spiders need is provided by dense plant growth, such as grass (with tall grass, as in a meadow, giving more shelter than short grass, as in a lawn); dense foliage, as in a Douglas fir bough or a privet hedge; or leaf litter cover of the soil, as on a forest floor. Absence of these protecting factors makes a poor spider habitat. The spider density in a parking lot is near zero, and in a vegetable garden with plants several inches apart and bare soil between, very few spiders will survive.

Enhancing Spider Habitat

What causes the most damage to garden plants? In many cases, the answer is insects. And assuming that one wants to control garden insects without adding to the pesticide pollution problem, what better solution could there be than to encourage spiders to do what they do best? Enhancing spider habitat for pest control is such an obvious idea that it seems it must have been tried long ago. But in fact, the first scientific study along these lines was not published until 1990.

Susan Riechert of the University of Tennessee tested an array of vegetable plots (radish, broccoli, cabbage, potato and tomato), of which some were the traditional bare-dirt-between type and others had the soil between rows and plants covered with loose mulch (grass clippings and/or dead leaves) sufficient to shade most of the bare soil. This mulching was done early in the season when spiders disperse (no later than April), so spiders would colonize the mulched surfaces. This process enhanced spider populations in the mulched gardens by 10 to 20 times over the bare-ground gardens for most of the growing season. Depending on vegetable type, the number of insect pests per plant was up to 13 times greater and insect damage to leaves up to 22 times higher in the traditional plots versus the mulched plots.

Ever since reading Riechert's published report of this study, I have covered the bare ground in my own little vegetable plot with leaf mulch (from the previous fall's leaf compost pile) every spring. If I'm growing something tall, I also make additional shade later in the season by not pulling weeds, but just keeping them clipped well below the level of the vegetable plants. (This last technique is not as important as the initial mulching, but it does help.) With these habitat enhancements, there is very rarely any insect damage to my vegetables. Not only that, but I always know where I can get a few spiders for a lecture or demonstration! I don't actively cultivate flowers but I see no reason why the technique shouldn't work for them as well as for vegetables.

So, are insects eating your plants? Give spiders a chance!

Rod Crawford is Curator of Arachnids at the University of Washington's Burke Museum. He may be reached at tiso@u.washington.edu. For further information visit the Spider Myths Web Site, www.washington.edu/burkemuseum/spidermyth/index.html, or Spider Collector's Journal, http://crawford.tardigrade.net/journal/index.html.

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MIKE LEE *continued from page 20*

introductions coming from Piroche Plants in British Columbia.

• **Dan Hinkley:** *How do you approach the growing concern over invasive plants species in our area, in fact throughout North America?*

▪ **Mike Lee:** We keep an eye out for invasives in the new plants we try. We have already eliminated a few that we found seeding around the nursery. We will be phasing out female *Ilex aquifolium* and *Buddleia davidii* this year.

• **Dan Hinkley:** *Well, since we already know that old gardeners never die, and you are far from old, what plans do you have for Colvos Creek in the future?*

▪ **Mike Lee:** I started Colvos Creek with hopes of becoming a wholesale nursery to obtain the many good yet rare plants I wanted to introduce into the trade and into landscapes. I would still like to do that in some way, and if I had the funds, I would buy some land and expand so that we could offer at least the trees in larger sizes and quantities. That may eventually happen. We have started a branch operation near the Vashon town center, and there is room there to expand. Meanwhile, we will continue to grow as much as we can and keep bringing in everything promising and exciting we can find to keep the place interesting. ∾

Dan Hinkley is Director of Collections of Heronswood Nursery in Kingston, Washington, which he founded in 1987 with partner Robert Jones. Dan is currently working on Part II of "The Explorer's Garden: Shrubs and Vines," to be published by Timber Press.

Mike Lee is proprietor of Colvos Creek Nursery and Landscaping, located on Vashon Island, Washington. He may be reached at mlla@mindspring.com.

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An Informal Social History of Horticultural Heroes & the Elisabeth C. Miller Horticultural Library

By Valerie Easton

PHOTOS OF ARTWORK BY SPIKE MAFFORD

The compelling part of the Elisabeth C. Miller Horticultural Library story isn't about bricks and mortar or even collections. In its twenty years of existence, the library has been remodeled, burned, and rebuilt, yet its physical history remains a secondary plot line. And while the library's various collections are a treasure trove for gardeners, it's been lively, opinionated and committed people who have shaped and made the library such a vital place. Without the expertise and generosity of so many, the Miller Library might well have lapsed into a quiet little departmental library rather than playing the significant role it does today as the information hub of the Northwest horticultural community.

When Laura Lipton and I were hired in June of 1985 to job-share the position of horticultural librarian and to start the first and only regional library for gardeners, we had no idea what was involved. I'm not at all sure Center for Urban Horticulture Director Dr. Harold Tukey did either, for we were charged with creating a most unusual hybrid of a library. Funded largely by private donations, located in a University building but confusingly separate from the University of Washington library system and charged with serving faculty, students, professional horticulturists and the gardening public, the library began with an intimidating brief. Along with inadequate funding, boxes of books and files sent over from the Arboretum, lots of

ABOVE: "Nature's Garden: An Aid to Knowledge of Our Wild Flowers and Their Insect Visitors" by Neltje Blanchan (published in 1905), includes this drawing of *Iris versicolor*. It was given to the Elisabeth C. Miller Library by the Arboretum Foundation in 1995.
BELOW: These drawings of *Larix griffithii* come from "Illustrations of Himalayan Plants" (published 1855) by Sir Joseph Dalton Hooker. This volume was part of former Arboretum Director Brian Mulligan's collection at the Arboretum, then part of the Miller Library's core collection.

big expectations and an already dedicated cadre of volunteers.

The Vision of Betty Miller

Of course the Miller Library wouldn't exist without the vision and tenacity of Betty Miller and the generosity of her husband, Pendleton. Betty believed Northwest gardeners deserved access to the science and literature of their favored pursuit. Inspired by visits to the libraries at the New York Botanical Garden and the Morton and Arnold Arboretums, she believed the new Center for Urban Horticulture (CUH) would be a perfect spot to house a library for gardeners. Pendleton gave the library to the University in his wife's name, along with an endowment for operations. Betty convinced the Northwest Horticultural Society and many of her friends to contribute. Dr. Tukey was instrumental in promoting the library as a major outreach component of the new Center. Otherwise he would have hired a botanical academic type rather than two young women librarians with a great enthusiasm for the nexus between plants and books.

Twenty years later, sons Winlock and Carey Miller remain active in supporting the library by serving as officers of the Miller Charitable Foundation. Dr. Frank Minton has played a pivotal role in financing the library all of its life, for he was Director of Development for the University when the Millers first made their gift, later leaving that job to advise Betty and then to head up the Miller Charitable Foundation. In the first confusing and demoralizing weeks after the fire of 2001, it was Frank Minton and Foundation board member Malcolm Moore who helped the staff set course and who bolstered our spirits with their staunch confidence in our work and the library's future.

Generous Donors & Volunteers

From the day it opened, the library needed plenty of angels, for we were faced with the

challenge of growing quickly enough to provide the materials and services demanded by an increasingly sophisticated gardening community. With only a small yearly stipend from the University and endowment income that lagged behind need, volunteers have played a major role in developing and sustaining the library.

This financial challenge has been the making of the Miller Library. Because so many people have open-heartedly and -handedly given time, money and expertise, the library is far richer and more diverse than you would expect for such a young institution. Nearly every book on the shelves is inscribed with a donor's name. Volunteers are an active part of the library's day-to-day operations, helping patrons and managing specific collections. Barbara Harris and Molly Cleland have worked in the library longer than any of the staff, each giving a half day a week for more than twenty years. Every single person on the current paid staff started out by volunteering before they were hired. When the library burned in May of 2001, people turned up in droves to help. Some brought food and beverages to share; everyone offered moral support. Many surreptitiously ducked under the police barriers and joined in sorting, cleaning and saving the books the firefighters carried from the burned building. In the midst of disaster, we felt blessed.

Over and over, when the library was in need, people stepped up. Years ago I mentioned a shortage of book funds to Dan Hinkley (OK, I complained about it), and he immediately suggested turning his new idea for a hellebore sale into a benefit for the library. Years later, the annual Heronswood Hellebore Open is a wildly popular party of a sale that has greatly enriched the library collection. Steve Lorton, Northwest Bureau Chief of Sunset magazine, was an early friend of the library, writing an influential article in Sunset entitled "A Library for Gardeners." When, in 1993, the Miller Library hosted the annual conference of the international Council of Botanical and Horticultural Libraries (CBHL)—the first time the group had ever ventured out to the Northwest, the festivities were capped off by a dream line-up of after dinner speakers, Steve Lorton and Dan Hinkley. When I recently ran into a CBHL member, more than ten years after the event, she was still reminiscing about the occasion.

The Miller Charitable Foundation, persistent in its desire to continue Betty's legacy, remains the most dependable and generous source of support for the library. It was the Foundation's pledge that increased the new library by nearly over 20 percent, so it would be adequate to serve the gardening public well into the new millennium.

No one knows how to put on a party better than the Northwest Horticultural Society (NHS), and the library has been the lucky recipient of funds garnered from its adept social and fund-raising skills. NHS has gallantly and consistently donated proceeds of its annual plant sale, paid for extended hours, and pushed the library to think big in providing more and better service to gardeners. NHS volunteers, such as Susan Adkins and Susie Marglin, along with NHS Presidents Doug Bayley and Pat Riehl, raised money, generated excitement and put on lively auctions. It would be difficult to overstate the many kindnesses and strategic support of Karin Kravitz, who, following the fire, lent the NHS office to library staff for the three and a half years they were without a building. Before I left the library at the end of 2002, NHS began a fund to furnish the new library with a goal of raising $200,000. The custom shelving, inviting red leather chairs and state-of-the-art computer terminals in the new library are a direct result of NHS members' hard work and vision for the new space.

Continuing Gifts

Much of the original library collection came from Washington Park Arboretum, and Director Brian Mulligan was an early supporter,

starting a fine tradition that the Arboretum Foundation has continued. President Dick Doss made sure that for years the Foundation supplied funds for books, and there's a fertile cross-over of Arboretum and library volunteers. Foundation Office Manager Christy Cronn began her garden-inspired career by volunteering in the library.

The Elisabeth C. Miller Botanical Garden, Betty's other brainchild, has always been part of a productive partnership with the library. Starting with Daniel Zatz and especially under Director Richard Hartlage, garden staff freely shared expertise and energy with the library. Hartlage sparked the annual Miller Lecture into the fine event it has become, and garden staff have helped the library in so many ways over the years, a practice liberally continued by Richie Steffen and Greg Graves.

Major gifts and endowments have come the library's way from patrons like Cathy Hillenbrand, Deborah Heg, Sylvia Duryee, Marian Smith, Lyle and Mary Jo Clark, Jill Riehl and Ruth Ellerbeck. These gifts have made all the difference between a vital and bustling library with an inspired and active staff, and a dusty room filled with partially empty shelves.

The story of Ruth Ellerbeck's gifts is especially poignant and representative of the role donors have played in library operations. One day, a tiny, elderly woman (who could have been Helen Hayes) walked through the library door. I'd never met her before. She held my hand, looked into my eyes, and asked, "Did Betty leave you everything you need, dear? She was a very dear friend of mine, and I'm wondering if you need some money?" Ruth Ellerbeck and I became friends. I enjoyed cucumber-and-watercress sandwich teas in her beautiful Magnolia home, and she made a number of gifts to the library, including an endowment upon her death. Her donations helped us balance the budget in more years than I care to remember. The gift of her own special books remain a tribute to the love, care and expertise of the Northwest gardening community, who through their largesse, have created one of the finest horticultural libraries in the country. ❧

Valerie Easton is the founding librarian of the Miller Horticultural Library. Nowadays she writes regularly for a variety of gardening magazines, including the weekly column "Plant Life" in Pacific Northwest Magazine of the Seattle Times, and is working on a new garden on Whidbey Island and a new book to be published by Timber Press in 2006. She may be reached at valeaston@comcast.net.

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